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Timestamp: [year=2008; month=1; day=18; hr=13; min=57; sec=44; ms=327;]

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Application No: 10535168 Version No: 3.0

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No. of SeqIDs Defined: 217
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<110> Chiron SRL
Norais, Nathalie
Grandi, Guido

<120> Unexpected Meningococcus Surface Proteins

<130> P032364WO

<140> 10535168

<141> 2006-06-29

<150> PCT/IB03/06281

<151> 2003-11-17

<150> GB0226734.2

<151> 2002-11-15

<150> GB0307131.3

<151> 2003-03-27

<160> 217

<170> SeqWin99, version 1.02

<210> 1

<211> 403

<212> PRT

<213> Neisseria meningitidis

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Asp	Asn	Gly	Ala	Ser	Val	Ile	Val	Met	Thr	His	Leu	Gly	Arg	Pro	Thr
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Glu	Gly	Glu	Phe	His	Pro	Glu	Asp	Asp	Val	Ala	Pro	Val	Ala	Ala	His
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Glu	Asn	Lys	Pro	Ala	Leu	Asn	Ala	Gly	Asp	Val	Val	Met	Leu	Gln	Asn
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Val	Arg	Ile	Asn	Lys	Gly	Glu	Lys	Lys	Asn	Asp	Leu	Glu	Leu	Gly	Lys
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Ala	Tyr	Ala	Ser	Leu	Cys	Asp	Val	Phe	Val	Asn	Asp	Ala	Phe	Gly	Thr
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Ala His Arg Ala Gln	Ala Ser Thr Glu Ala Val	Ala Gln Ala Ala Pro																	
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Ser Lys Val Ser Thr	Lys Leu Thr Ile Leu	Glu Ser Leu Ala Asp Lys																	
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	210	215	220																
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225	230	235	240																
Glu Glu Ser Lys Lys	Ile Met Ala Lys Met	Ala Ala Lys Gly Gly Ser																	
	245	250	255																
Val Pro Leu Pro Thr	Asp Val Val Val Ala	Lys Ala Phe Ala Ala Asp																	
	260	265	270																
Ala Glu Ala Val Val	Lys Asp Ile Ala Ala	Asp Ala Glu Ala Val Val																	
	275	280	285																
Lys Asp Ile Ala Asp	Val Ala Glu Asp Glu	Met Ile Leu Asp Ile Gly																	
	290	295	300																
Pro Lys Ser Ala Ala	Ala Leu Ala Asp Leu	Leu Lys Ala Ala Gly Thr																	
305	310	315	320																
Val Val Trp Asn Gly	Pro Val Gly Val Phe	Glu Phe Asp Gln Phe Ala																	
	325	330	335																
Gly Gly Thr Lys Ala	Leu Ala Glu Ala Ile	Ala Gln Ser Lys Ala Phe																	
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Val Thr Glu Gln Ile	Gly Tyr Ile Ser Thr	Gly Gly Gly Ala Phe Leu																	
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 <213> Neisseria meningitidis

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Asp Tyr Thr Ala Arg Ala Gln Val Ser Glu Ala Ile Leu Leu Ala Glu
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Gly Gln Lys Ser Ala Val Thr Glu Tyr Tyr Leu Asn His Gly Glu Trp
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Pro Gly Asn Asn Thr Ser Ala Gly Val Ala Thr Ser Ser Glu Ile Lys
65 70 75 80

Gly Lys Tyr Val Lys Ser Val Glu Val Lys Asn Gly Val Val Thr Ala
85 90 95

Gln Met Ala Ser Ser Asn Val Asn Asn Glu Ile Lys Gly Lys Lys Leu
100 105 110

Ser Leu Trp Ala Lys Arg Gln Asn Gly Ser Val Lys Trp Phe Cys Gly
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Gln Pro Val Thr Arg Asp Lys Ala Lys Ala Ala Asn Asp Asp Val Thr
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<212> PRT

<213> Neisseria meningitidis

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35 40 45

Asp Asp Thr His Gly Thr Pro Val Met Leu Ala Ala Gln Lys Gln Gly
50 55 60

Ile Ala Pro Glu Asp Met Ile Ala Lys Val Arg Glu Glu His Leu Ala
65 70 75 80

Asp Phe Thr Gly Phe Phe Ile Gly Tyr Asp Asn Tyr Tyr Ser Thr His

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Ala Asn Gly Lys Ile Glu Ser Arg Val Ile Glu Gln Leu Phe Asp Pro		
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Glu Lys Gln Met Phe Leu Pro Asp Arg Phe Val Lys Gly Glu Cys Pro		
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Lys Cys His Ala Gln Asp Gln Tyr Gly Asp Asn Cys Glu Val Cys Gly		
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Thr Thr Tyr Ser Pro Thr Glu Leu Ile Asn Pro Tyr Ser Ala Val Ser		
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Gly Thr Lys Pro Glu Leu Arg Glu Ser Glu His Phe Phe Phe Lys Leu		
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Gly Glu Cys Ala Asp Phe Leu Lys Ala Trp Thr Ser Gly Asn Asn Pro		
195	200	205
His Asp Gly Lys Pro His Leu Gln Ala Glu Ala Leu Asn Lys Met Lys		
210	215	220
Glu Trp Leu Gly Glu Gly Glu Glu Thr Thr Leu Ser Asp Trp Asp Ile		
225	230	235
Ser Arg Asp Ala Pro Tyr Phe Gly Phe Glu Ile Pro Asp Ala Pro Gly		
245	250	255
Lys Tyr Phe Tyr Val Trp Leu Asp Ala Pro Val Gly Tyr Met Ala Ser		
260	265	270
Phe Lys Asn Leu Cys Asp Arg Ile Gly Val Asp Phe Asp Glu Tyr Phe		
275	280	285
Lys Ala Asp Ser Gln Thr Glu Met Tyr His Phe Ile Gly Lys Asp Ile		
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Leu Tyr Phe His Ala Leu Phe Trp Pro Ala Met Leu His Phe Ser Gly		
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His Arg Ala Pro Thr Gly Val Tyr Ala His Gly Phe Leu Thr Val Asp		
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Gly Gln Lys Met Ser Lys Ser Arg Gly Thr Phe Ile Thr Ala Lys Ser		
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Tyr Leu Glu Gln Gly Leu Asn Pro Glu Trp Met Arg Tyr Tyr Ile Ala		
355	360	365
Ala Lys Leu Asn Ser Lys Ile Glu Asp Ile Asp Leu Asn Leu Gln Asp		
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Phe Ile Ser Arg Val Asn Ser Asp Leu Val Gly Lys Tyr Val Asn Ile		

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Lys Asp Val Ala Asp Ser Glu Leu Leu Ala Lys Leu Thr Ala Gln Ser						
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Glu Ala Ile Ala Glu Cys Tyr Glu Ser Arg Glu Tyr Ala Lys Ala Leu						
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Arg Asp Ile Met Ala Leu Ala Asp Ile Val Asn Glu Tyr Val Asp Ala						
	450		455		460	
Asn Lys Pro Trp Glu Leu Ala Lys Gln Glu Gly Gln Asp Glu Arg Leu						
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His Glu Val Cys Ser Glu Leu Ile Asn Ala Phe Thr Met Leu Thr Ala						
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Tyr Leu Ala Pro Val Leu Pro Gln Thr Ala Ala Asn Ala Ala Lys Phe						
	500		505		510	
Leu Asn Leu Glu Ala Ile Thr Trp Ala Asn Thr Arg Asp Thr Leu Gly						
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Lys His Ala Ile Asn Lys Tyr Glu His Leu Met Gln Arg Val Glu Gln						
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Lys Gln Val Asp Asp Leu Ile Glu Ala Asn Lys Gln Ser Ile Ala Ala						
	545		550		555	
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Gln Ala Ser Phe Asp Asp Phe Met Lys Ile Asp Met Arg Val Ala Lys						
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Val Leu Asn Cys Glu Ala Val Glu Gly Ser Thr Lys Leu Leu Lys Phe						
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Asp Leu Asp Phe Gly Phe Glu Lys Arg Ile Ile Phe Ser Gly Ile Ala						
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Ala Ser Tyr Pro Asn Pro Ala Glu Leu Asn Gly Arg Met Val Ile Ala						
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<213> Neisseria meningitidis

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35 40 45

Gln Asn Ile Cys Val Val Ile Gly His Gly Lys Glu Gln Val Leu Asp
50 55 60

Thr Val Lys Arg Asp Val Val Trp Val Glu Gln Thr Glu Gln Leu Gly
65 70 75 80

Thr Gly His Ala Val Lys Thr Ala Leu Pro His Leu Ser Ala Glu Gly
85 90 95

Arg Thr Leu Val Leu Tyr Gly Asp Val Pro Leu Ile Asp Val Glu Thr
100 105 110

Leu Glu Thr Leu Leu Glu Ala Ala Gly Asn Glu Val Gly Leu Leu Thr
115 120 125

Asp Val Pro Asn Asp Pro Thr Gly Leu Gly Arg Ile Ile Arg Asp Ser
130 135 140

Asn Gly Ser Val Thr Ala Ile Val Glu Glu Lys Asp Ala Asp Ala Val
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Gln Lys Ala Val Lys Glu Ile Asn Thr Gly Ile Leu Val Leu Pro Asn
165 170 175

Ala Lys Leu Glu Asn Trp Leu Asn Ser Leu Ser Ser Asn Asn Ala Gln
180 185 190

Gly Glu Tyr Tyr Leu Thr Asp Leu Ile Ala Lys Ala Val Ala Asp Gly
195 200 205

Ile Lys Val His Pro Val Gln Val Arg Ala Ser His Leu Ala Ala Gly
210 215 220

Val Asn Asn Lys Leu Gln Leu Thr Glu Leu Glu Arg Ile Phe Gln Thr
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Glu Gln Ala Gln Glu Leu Leu Lys Ala Gly Val Thr Leu Arg Asp Pro
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Ala Arg Phe Asp Leu Arg Gly Arg Leu Lys His Gly Gln Asp Val Val
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Ala Ile Gly Lys Gly Thr Lys	Ala Asn His Leu Thr Tyr	Ile Gly Asp
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Ala Glu Val Gly Cys Lys Thr	Asn Phe Gly Ala Gly Thr	Ile Ile Ala
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Asn Tyr Asp Gly Val His Lys	His Lys Thr Val Ile Gly	Asp Glu Val
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Arg Ile Gly Ser Asn Cys Val	Leu Val Ala Pro Val Thr	Leu Gly Asn
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								295								300																												
Ile	Val	Leu	Ala	Asp	Thr	Ala	Gly	Arg	Leu	Pro	Thr	Gln	Leu	His	Leu																													
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